



## Hand Hygiene Practices of General Dentists

Myers R, Larson E, Cheng B, Schwartz A, Da Silva K, Kunzel C. Hand hygiene among general practice dentists a survey of knowledge, attitudes and practices. *J Am Dent Assoc* 2008;139:948–957.

Hand hygiene is a key practice used to reduce the risk and spread of infection. The authors conducted a study to examine the self-reported knowledge, attitudes and practices of general practice dentists regarding hand hygiene and factors associated with hand hygiene and skin condition. The authors mailed a questionnaire to a random sample of active general practice dentists drawn from a list supplied by the New York State Dental Association. The authors classified eight general practice dentists as ineligible, leaving a net sample of 352. They received 234 responses (66% response rate). Besides asking questions about their practice settings, participants were asked about their hand-hygiene practices, the hand-hygiene practices used, the condition of the skin on their hands, their attitudes toward hand-hygiene practices, and their adherence to hand-hygiene guidelines. At the start of the practice day, 71% of general practice dentists often/almost always/always washed with soap but never/almost never disinfected with an alcohol-based hand sanitizer. Twenty-two percent often/almost always/always washed with soap and disinfected with alcohol-based hand sanitizers. General practice dentists with good/excellent knowledge of the 2002 Centers for Disease Control and Prevention (CDC) *Guideline for Hand Hygiene in Health-Care Settings* were more likely to report acceptable hand hygiene behavior. Approximately one-third of general practice dentists had limited/moderate knowledge of the CDC hand-hygiene guideline. Most general practice dentists use soap and water for hand hygiene frequently, and a smaller number of general practice dentists use alcohol-based hand sanitizers for hand hygiene frequently. **Results show that 25% of general practice dentists or fewer maintain inadequate hand hygiene. Knowledge of the CDC hand-hygiene guideline needs to be heightened. Further education of the dental community is warranted to improve hand hygiene compliance, efficacy of hand-hygiene practices and skin health.**

**DECS Comment: This is the first study providing a comprehensive assessment of hand-hygiene practices of general dentists in the United States. Hand-hygiene practices have been widely studied for other health-care personnel (HCP) and over 30 published articles show that compliance with recommended hand-hygiene procedures has been poor with an overall average rate of only 40% in hospital settings. In these studies, self-reported reasons for lack of compliance frequently include: handwashing agents cause skin irritation and dryness; sinks are inconveniently located/lack of sinks; lack of soap and paper towels; too busy/handwashing takes too**

long; wearing of gloves; hands don't look dirty; and a perceived low risk of acquiring infection from patients. In contrast, most general dentists in the current study reported that they were not too busy for hand hygiene, that they often treated patients with infections and they were at considerable risk of acquiring infection, and that they had access to the necessary supplies. The authors also reported that survey participants only used alcohol-based hand products 21-25% of the time. Advantages of alcohol-based hand rubs include increased antimicrobial activity, greater accessibility in areas that do not have sinks and running water, and the potential to be less irritating to the hands. For these reasons, the 2002 CDC hand-hygiene guidelines emphasized alcohol-based hand rubs in an attempt to increase compliance among HCP in hospital settings. The authors attributed the decreased usage of alcohol-based hand rubs in dentistry partially because their use was not emphasized in the CDC *Guidelines for Infection Control in Dental Health-Care Settings—2003*. Although alcohol-based hand rubs have the potential to increase hand-hygiene compliance because they do not require water, sinks and hand-hygiene supplies (e.g., soap, paper towels) are readily available in dental operatories unlike in many other health-care settings which could be a reason why they are not as widely used in dental settings. If individuals think the use of alcohol-based hand rubs will increase compliance with hand hygiene or may help decrease dermatitis symptoms, then the addition of these products to the dental practice may be indicated. The authors concluded that compliance for hand hygiene among the surveyed participants was 75% and that additional hand-hygiene education is necessary for dental health-care personnel. While we should always strive for 100% compliance, the reported compliance rate among general dentists is much better than the 40% compliance reported in the literature for other HCP. Studies have shown that ongoing educational and motivational activities may be needed for long-lasting improvement in hand-hygiene practices. Additional resources are available on the DECS Web site to assist with educating dental health-care personnel about the importance of hand hygiene, including a [hand-hygiene fact sheet](#) and a [continuing education presentation](#).

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